Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

119790

Cognitive impairment in previously independent COVID-19 patients: The tip of the iceberg?

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Background and aims

Several pathologies other than pulmonary disease have been attributed to COVID-19. No data are available on the cognitive status of postCOVID-19 subjects without a history of cognitive impairment.

Methods

Out of 285 subjects admitted to the Internal Medicine COVID Unit from November 2020 to January 2021, 48 patients [median age = 73.5 (23.25); 24M/24F] were recruited and evaluated with MoCA Test HAM-D, HAM-A; an evaluation of blood oxygen saturation and heart rate was performed before and after the assessment. Inclusion criteria were: radiologically confirmed symptomatic COVID-19 pneumonia, positive reverse transcription-polymerase chain reaction nasopharyngeal swab, being independent at home before the infection (Barthel Index = 100), not being previously diagnosed with cognitive impairment/neurological diseases, no delirium episodes during COVID-19 acute phase, no mechanical ventilation need and no oxygen supplementation at the time of evaluation.

Results

The median score of MoCA test was 20.5 (8) and no subjects showed relevant anxiety [median HAM-A score=5.5 (9)] and/or depressive symptoms [median HAM-D score = 5 (7.5)]. According to MoCA score, the sample was divided into two groups: 34 subjects with MoCA < 23 (Impaired Group) and 14 subjects with MoCA ≥ 23 (Normal Group). MoCA was correlated to age ($p = 0.0002$; $b = -0.571$).

Conclusions

The MoCA reveal that cognitive impairment is present in previously independent subjects and it is more detectable in subjects older than 65years compared to younger. No data are available to determine whether COVID-19 will lead to cognitive dysfunction related to the sub-acute phase of the infection or to an increase of long-term cognitive impairment, therefore a follow-up will be crucial.

doi:10.1016/j.jns.2021.119790

119791

Cognitive and neuropsychiatric features of COVID-19 patients after hospital dismission: An Italian pilot study

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Background and aims

Recent studies suggest cognitive, emotional, and behavioral impairments occur in patients after SARS-CoV-2 infection. However, studies are still few and to our knowledge, without a control group. This study aims to assess the prevalence of neuropsychological and neuropsychiatric impairment in patients after hospitalization.

Methods

We enrolled 17 Covid+ patients (M/F:12/5; age: 53.59 ± 12.32 yrs; education 11.88 ± 3.6 yrs) who needed hospitalization but no IC, about 18 days post dismission, and 17 Covid- matched controls (M/F:11/6; age: 53.82 ± 12.34 yrs; education: 12.59 ± 3.77 yrs). Neuropsychological and neuropsychiatric assessments were conducted via tele neuropsychology with the following tests: MMSE, CPM47, RAVLT, CDT, Digit-Span Forward/Backward, Verbal fluencies; BDI-II, STAI, AES. People with previous cognitive impairment, neurological or psychiatric conditions were excluded. Clinical and demographics were collected. Comparison between groups was conducted using parametric or non-parametric tests according to data distribution (T-test, Mann Withney-U test; Chisquare).

Results

Among Covid+, 82% had at least one pathological test (vs 30% in Covid-; p=0,001) and significantly worst performaces than Covid- in Digit Backward (4.05 ± 1.2 vs 4.8 ± 1 $p = 0.046$), RAVLTlearning (42 ± 9.4 vs 49.4 ± 7.9 $p = 0.018$), RAVLTrecall (8,1±2,9 vs 10.6 ±2,5 p=0,013), Semantic Fluencies (43.7 ± 7.3 vs 50.6 ± 6.8 $p = 0.008$). STAI-Y2 was higher in Covid- (32.6 ± 7.4 vs 40.5 ± 7.9 $p = 0.005$).

Conclusions

Patients Covid+ assessed by tele neuropsychology showed a vulnerability in some memory end executive functions (working memory, learning and recall, semantic memory). Intriguingly, anxiety was higher in the control group. Our findings, therefore, confirm an impact of Covid-19 on cognition even in patients who did not need IC. Follow-up is needed to evaluate if these difficulties can recover with time.

doi:10.1016/j.jns.2021.119791

119792

Cognitive and affective disorders in critical SARS-CoV-2 patients and caregivers

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Background and aims

We investigated cognitive and affective disorders in patients with SARS-CoV-2 hospitalized in Intensive Care Unit (ICU). Care givers quality of life, psychological distress and satisfaction with the information received by health-care professionals were assessed.

Methods

From March 1 to April 30, 2020, 22 consecutive patients with SARS-CoV-2 infection, confirmed by PCR on oronasopharyngeal swab, requiring ICU admission were recruited together with a caregiver. Patients with previous cognitive disorders were excluded. Three months after ICU discharge, patients underwent a